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10/634,147

08/04/2003

Hans Rudolf Sterling

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05/17/2006

REED SMITH, LLP

ATTN: PATENT RECORDS DEPARTMENT

599 LEXINGTON AVENUE, 29TH FLOOR

NEW YORK, NY 10022-7650

EXAMINER

CHOW, DOON Y

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/634,147 | Applicant(s) STERLING, HANS RUDOLF | |
| | Examiner Dennis-Doon Chow | Art Unit 2629 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-20 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-20 and 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gersheneld et al. (5914701).

Regarding to claim 14 and 17, Gersheneld discloses a position input device comprising: a signal generator 16 (oscillator) that generates an oscillating injection signal for coupling to a first body part of a human body (Fig. 7); a first input wire operable to receive a first position signal from a first position sensing electrode (24, Fig. 3) that provides a first signal indicative of distance of the first position sensing electrode from a second body part in a non-contacting manner (Fig. 7); a second input wire operable to receive a second position signal from a second position sensing electrode (26, Fig. 3) that provides a second signal indicative of distance of the second position sensing electrode from the second body part in a non-contacting manner (Fig. 7), the first and second position sensing electrodes being spaced from each other (22, Figs 7

and 8); and a differential amplifier (47, Fig. 3) having first and second differential inputs connected to the first and second inputs to receive the first and second signals.

Gersheneld does not explicitly disclose a processing device connected to the differential amplifier and operable to generate a distance signal based on evaluation of the first and second signals. However, Gersheneld discloses a processor, which is housed in a computer, for generating a distance signal based on evaluation of the first and second signals (col. 7, lines 22-30). Thus, it would have been obvious to one of ordinary skill in the art to connect the processor to the differential amplifier to receive the first and second signals so that distance signal can be generated.

Regarding to claims 15, 18, Gersheneld further discloses the distance signal is received by the computer to control a cursor on a display (col. 7, lines 5-12).

Regarding to claim 16 and 19, Gersheneld does not disclose the use of an analog to digital converter (ADC) for converting the first and second signals to digital signals. However, since most of conventional computers, including Gersheneld's computer, are digital computers, it would have been obvious to one of ordinary skill in the art to use an ADC in Gersheneld's processor to convert the first and second signals into digital signals so that they can be used in the digital computers.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Gersheneld et al.

Gersheneld discloses an input device for controlling the position of a cursor on a display of a computer, the input device comprising: at least one first position sensing electrode positioned near a fixed reference frame defining an imaginary input boundary, for sensing the strength of a field established about a movable body part of an operator in a non-contacting manner and thereby to provide a first control variable corresponding to the position of the body part in the reference frame in a first direction; at least one second position-sensing electrode positioned near the fixed reference frame and spaced from the at least one first position-sensing electrode, for sensing the strength of the field about the movable body part in a non-contacting manner and thereby to provide a second control variable corresponding to the position of the body part in the reference frame in a second direction; and a control circuit (col. 7, lines 22-30) operative in response to the first and second control variables to position the cursor on the display screen in accordance with the position of the body part in an active region defined by the reference frame; the cursor being positioned in response to the first and second control variables by movement of the body part in the active region (col. 7, lines, 7-11). Gersheneld further discloses a signal generator (16, Figs. 1-3) for generating an oscillating electrical signal, and an injection electrode, operable to directly connect to

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the body (see 18, Fig. 1), for injecting the electrical signal into the body of the operator so as to establish the field about the movable body part.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gersheneld et al.

Gersheneld does not disclose adding an additional pointing device to the computer, and a selection means for selecting either the additional pointing device or the input device controlling the position of the cursor. However, it is well known in the art to have multiple pointing devices in a computer system, and a selection means for selecting any one of the multiple pointing devices to control a cursor on a display. It would have been obvious to one ordinary skill in the art to use an additional pointing device in Gersheneld's computer, and a selection means for selecting either the additional pointing device or the input device so that the user has an option not to use the input device to control the position of the cursor.

Allowable Subject Matter

6. Claims 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed 3/1/06 have been fully considered but they are not persuasive.

Applicant argues that Gersheneld uses a different principle of capacitive coupling to inject signals into a human body, whereas the present application uses a direct connection to directly inject an oscillating signal into a human body. Applicant then argues that this technique is different from the capacitive coupling technique of Gersheneld. Examiner disagrees with applicant's arguments. It may be correct that Gersheneld teaches using the capacitive coupling to inject signals into the human body, but there is no difference between Gersheneld's teachings and the claim limitations. Claims 14 and 17 recite "... generates an oscillating injection signal for direct electrical connection to a first body part of a human body ...". Gersheneld teaches a signal generator 16 (the oscillator) generates a voltage signal, and the voltage signal is then passed through a human body (col. 4, lines 47-54). Fig. 1 of Gersheneld also shows the electrode 18 is attached the human body (also see col. 4, lines 38-42). Thus, Gersheneld clearly teaches "generates an oscillating injection signal for direct electrical connection to a first body part of a human body". Claim 20 recites "... a signal injection electrode connected to the oscillator and operable to directly connect to a body part of an operator ...". Again, Fig. 1 of Gersheneld shows the electrode 18 is attached (connected) to the human body, and the electrode 18 is operable.

Applicant argues that the amplifier 47 of Gersheneld is not a differential amplifier. Examiner disagrees with applicant's argument because the amplifier 47 is a differential

amplifier. The amplifier 47 detects the potential difference between the electrodes 24 and 26 (see col. 5, lines 46-55).

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis-Doon Chow whose telephone number is 571-272-7767. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Chow
August 31, 2005

Dennis-Doon Chow
Primary Examiner
Art Unit 2629



DENNIS-DOON CHOW
PRIMARY EXAMINER